

WHAT IS CLAIMED IS:

Sub A2

1. A computer implemented method of modifying code to be compatible with a runtime library, wherein the code is received from a remote source, the method comprising the steps of:

receiving a code segment from the remote source;

tokenizing the code segment into a plurality of tokens;

parsing the plurality of tokens so as to determine relationships between the plurality of tokens;

translating the code segment into a modified code segment based on the determined relationships between the tokens such that the modified code segment is compatible with the runtime library.

2. The method of claim 1, wherein the code segment is one of a JavaScript code segment, a Java code segment, an ActiveX code segment and a markup language segment.

3. The method of claim 1, wherein the runtime library is linked to a browser application in a client device communicably coupled to a proxy server, and wherein the steps of receiving, tokenizing, parsing and translating the code segment are performed in the proxy server.

4. The method of claim 3, further including the step of sending the modified code from the proxy server to the client device to be processed by the browser.

5. The method of claim 3, wherein the client device is communicably coupled to the proxy server over the Internet.

1                   6.     The method of claim 1, wherein the proxy server performs the  
2 steps of receiving, tokenizing, parsing and translating the code segment.

1                   7.     The method of claim 1, wherein the runtime library is linked to a  
2 browser application in a client device communicably coupled to a proxy server, wherein  
3 the step of receiving the code segment from the remote source is performed in the proxy  
4 server, wherein the steps of tokenizing, parsing and translating the code segment are  
5 performed in the client device, and wherein the method further includes the step of  
6 sending the code segment from the proxy server to the client device.

1                   8.     The method of claim 7, wherein the code segment includes a  
2 dynamically assembled portion.

1                   9.     The method of claim 7, wherein the client device is communicably  
2 coupled to the proxy server over the Internet.

1                   10.    The method of claim 1, wherein the step of translating includes  
2 translating a first function call to a second function call, wherein the second function call  
3 is compatible with the runtime library.

1                   11.    The method of claim 1, wherein the step of translating includes  
2 translating a function call to a variable, wherein the variable is compatible with the  
3 runtime library.

1                   12.    The method of claim 1, wherein the step of translating includes  
2 translating a first variable to a second variable, wherein the second variable is compatible  
3 with the runtime library.

1           13.    The method of claim 1, wherein the step of translating includes  
2 translating a variable to a function call, wherein the function call is compatible with the  
3 runtime library.

1           14.    The method of claim 1,  
2 wherein the code segment includes one or more first elements selected  
3 from the group consisting of:  
4        digits, characters, keywords, literals, identifiers, operators, expressions,  
5        statements, variables, regular expressions, functions, arguments and programs;  
6        wherein the modified code segment includes one or more second elements  
7 selected from the group consisting of:  
8        digits, characters, keywords, literals, identifiers, operators, expressions,  
9        statements, variables, regular expressions, functions, arguments and programs;  
10       and  
11       wherein the second elements are compatible with the runtime library.

1           15.    A computer readable medium containing instructions for  
2 controlling a computer system to modify a code segment received from a remote source  
3 to be compatible with a runtime library, by:  
4        tokenizing the code segment into a plurality of tokens;  
5        parsing the plurality of tokens so as to determine relationships between the  
6 plurality of tokens;  
7        translating the code segment into a modified code segment based on the  
8 determined relationships between the tokens such that the modified code segment is  
9 compatible with the runtime library.

1           16.    The computer readable medium of claim 15, wherein the code  
2 segment is one of a JavaScript code segment, a Java code segment, an ActiveX code  
3 segment and a markup language segment.

006280" E205960

1           17.     The computer readable medium of claim 15, further comprising  
2 instructions for handling an exception when an exception occurs.

1           18.     The computer readable medium of claim 15, wherein the runtime  
2 library is implemented on a client device communicably coupled to a proxy server.

1           19.     The computer readable medium of claim 15, wherein the  
2 instructions for translating include instructions for translating a function call to a variable,  
3 wherein the variable is compatible with the runtime library.

1           20.     The computer readable medium of claim 15, wherein the  
2 instructions for translating include instructions for translating a first variable to a second  
3 variable, wherein the second variable is compatible with the runtime library.

1           21.     The computer readable medium of claim 15, wherein the  
2 instructions for translating include instructions for translating a first function call to a  
3 second function call, wherein the second function call is compatible with the runtime  
4 library.

1           22.     The computer readable medium of claim 15, wherein the  
2 instructions for translating include instructions for translating a variable to a function call,  
3 wherein the function call is compatible with the runtime library.

1           23.     The computer readable medium of claim 15,  
2 wherein the code segment includes one or more first elements selected  
3 from the group consisting of:

4 digits, characters, keywords, literals, identifiers, operators, expressions,  
5 statements, variables, regular expressions, functions, arguments and programs;  
6 wherein the modified code segment includes one or more second elements  
7 selected from the group consisting of:  
8 digits, characters, keywords, literals, identifiers, operators, expressions,  
9 statements, variables, regular expressions, functions, arguments and programs;  
10 and  
11 wherein the second elements are compatible with the runtime library.

006280" C/205960